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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/879,467	06/20/1997	DENNIS A. DURBIN	DN38240R1	9545

7590

12/23/2003

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EXAMINER

CHEN, WENPENG

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 12/23/2003

26

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/879,467

Applicant(s)

DURBIN ET AL.

Examiner

Wenpeng Chen

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/9/2003 has been entered.

Examiner's Comment

2. Applicant's arguments with respect to the new claims have been considered. Although the passage of Postman, column 33, lines 1-12 teaches/suggests scanning multiple barcodes, ~~the~~ The Examiner agrees with the applicants that the passage of Postman, column 33, lines 1-12 that teaches "a day's worth of decoded data is stored and transferred to a PC later" *alone* does not suggest teaching of "storing a batch of undecoded image data for later decoding."

Details of ground of rejections to new Claims 19-20 are given below.

Claim Objections

Art Unit: 2624

3. Claim 19 is objected to because of the following informalities: The word "generated" in line 4, Claim 19 shall be changed to "generate". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 19-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Postman et al. (US patent 6,041,374 cited previously.)

a. With regard to Claim 19, Postman teaches a coded image capture and decoding system (Figs. 23-24) comprising:

-- a capture system comprising (column 7, line 52 to column 8, line 37; combination of blocks 505 and 510 of Fig. 23 and combination of blocks 505 and 520 of Fig. 24):

- an optical system that captures image data from coded targets, so as to generate a plurality of image data groups each representing information concerning a

Art Unit: 2624

coded target as a whole; (column 7, line 52 to column 8, line 37; The following passage in column 34, lines 26-37 teaches that **signals** are imported to a host computer through a PC card.

"Referring to FIG. 23, there is shown a block diagram of an embodiment of the invention that uses a serial port PC card to import undecoded barcode scanning engine or other input device output **signals** into a host computer for decoding on the host. In this embodiment, the undecoded output **signal** of the barcode scanning engine 510 is coupled by signal line 511 to the status pin of serial port 512 on the PC card 505. The PC card can be any serial card, but preferably is a serial card with a buffer 514 that can store the undecoded data from the barcode scanning engine or other input device temporarily until the host has a chance to access the serial card and download the data for decoding."

Many coded targets being scanned for processing is taught in column 33, lines 1-12. It is obvious to a skill in the art that more than one coded target can be scanned and each undecoded output signal is a signal of a coded target.)

- a first processing circuit, coupled to the optical system, that generates a plurality of undecoded images each based on one of the image data groups received from the optical system, so that the plurality of undecoded images each represents information concerning a coded target as a whole; (column 7, line 52 to column 8, line 37; the electronic parts receiving signal from photodiode 24 and generating data inputting to PC card)

- an image buffer, coupled to the first processing circuit, that stores the plurality of undecoded images generated by the first processing circuit; (column 34, line 26 to column 35, line 58; memory 514 and memory 524)

- a host system comprising (block 500 of Figs. 23-24):

- a non-dedicated second processing circuit, for coupling to the image buffer, that, after the plurality of undecoded images each represents information concerning a coded target as a whole, are stored in the image buffer, after a request by

Art Unit: 2624

the capture system, and with the non-dedicated second processing circuit having received the plurality of undecoded images from the image buffer so as to have the plurality of undecoded images available at a time for processing, attempts decoding processing of the plurality of undecoded images. (column 7, lines 25-51; column 34, line 26 to column 35, line 58; especially the passage in column 34, lines 26-37; The interrupts sent by the PC card is the request. The PDA and personal computer are general-use computers and thus contain no processing circuit dedicated to a specific application. The circuit under control of CPU and a computer program dynamically changes portion of the CPU circuit to perform a specific job such as decoding at a time.)

b. With regard to Claim 20, Postman teaches a coded image capture and decoding system comprising:

-- a remote capture unit comprising (column 7, line 52 to column 8, line 37; combination of blocks 505 and 510 of Fig. 23 and combination of blocks 505 and 520 of Fig. 24):

- an image buffer that stores a plurality of undecoded images each representative of a coded target; (column 7, line 52 to column 8, line 37; column 34, line 26 to column 35, line 58; memory 514 and memory 524; The following passage in column 34, lines 26-37 teaches that **signals** are imported to a host computer through storage in a PC card.

"Referring to FIG. 23, there is shown a block diagram of an embodiment of the invention that uses a serial port PC card to import undecoded barcode scanning engine or other input device output **signals** into a host computer for decoding on the host. In this embodiment, the undecoded output **signal** of the barcode scanning engine 510 is coupled by signal line 511 to the status pin of serial port 512 on the PC card 505. The PC card can be any serial card, but preferably is a serial card with a buffer 514 that can store the undecoded data from the barcode scanning engine or other input device temporarily until the

Art Unit: 2624

host has a chance to access the serial card and download the data for decoding."

Many coded targets being scanned for processing is taught in column 33, lines 1-12. It is obvious to a skill in the art that more than one coded target can be scanned and each undecoded output signal is a signal of a coded target.)

-- a host image processing unit, operably coupled to the remote capture unit, (block 500 of Figs. 23-24) the host image processing unit comprising:

- a processing circuit operable to effect decoding of undecoded images; (column 51, line 39 to column 52, line 6; The part of circuit programmed by the barcode decode software.)

-- code processing circuitry, communicatively coupled to the processing circuit, selectively directing the processing circuit to decode the plurality of undecoded images, each representative of the coded target. (column 51, line 39 to column 52, line 6; The part of circuit loaded with the barcode client application 786 is the code processing circuit for directing and controlling the decoding process.)

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2624

7. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamura et al. (Japan patent JP 02235188 A) in view of Postman et al. (US patent 6,041,374 cited previously.)

a. With regard to Claim 19, Tamura teaches a coded image capture and decoding system comprising:

-- a capture system comprising (Fig. 1):

- an optical system that captures image data from coded targets, so as to generate a plurality of image data groups each representing information concerning a coded target as a whole; (Fig. 1; page 601; The group of barcodes 30, 31, and 32 are scanned.)

- a first processing circuit, coupled to the optical system, that generates a plurality of undecoded images each based on one of the image data groups received from the optical system, so that the plurality of undecoded images each represents information concerning a coded target as a whole; (circuits 12 and 15 of Fig. 1; page 601)

- an image buffer, coupled to the first processing circuit, that stores the plurality of undecoded images generated by the first processing circuit; (memory 17 of Fig. 1)

-- a second processing circuit, for coupling to the image buffer, that, after the plurality of undecoded images each represents information concerning a coded target as a whole, are stored in the image buffer, and with the second processing circuit having received the plurality of undecoded images from the image buffer so as to have the plurality of undecoded images available at a time for processing, attempts decoding processing of the plurality of undecoded images. (decoder 18 of Fig. 1)

Art Unit: 2624

However, Tamura does not teach a host system comprising a non-dedicated second processing circuit for decoding the plurality of undecoded images as recited.

Postman teaches a decoding system comprising:

-- a host system comprising (block 500 of Figs. 23-24):

- a non-dedicated second processing circuit, for coupling to the image buffer, that, after one or more undecoded images each represents information concerning a coded target as a whole, are stored in the image buffer, after a request by the capture system, and with the non-dedicated second processing circuit having received the one or more undecoded images from the image buffer so as to the one or more undecoded images available at a time for processing, attempts decoding processing of the one or more undecoded images. (column 7, lines 25-51; column 34, line 26 to column 35, line 58; especially the passage in column 34, lines 26-37; The interrupts sent by the PC card is the request. The PDA and personal computer are general-use computers and thus contain no processing circuit dedicated to a specific application. The circuit under control of CPU and a computer program dynamically changes portion of the CPU circuit to perform a specific job such as decoding at a time.)

As discussed in column 2, lines 3-24, Postman points out the advantage of their system: not being locked into a proprietary technology that can become obsolete in a matter of months in the fast moving world of high tech electronics and providing flexibility of upgrading a barcode decoding system.

It is desirable to facilitate upgrading a barcode decoding system. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to replace Tamura's dedicated second processing circuit with Postman's host system having a non-

dedicated second processing circuit to perform the decoding process because the combination improves flexibility of the overall barcode decoding system.

b. With regard to Claim 20, Tamura teaches a coded image capture and decoding system comprising:

- a remote capture unit comprising (Fig. 1; page 601; The group of barcodes 30, 31, and 32 are scanned.):

- an image buffer that stores a plurality of undecoded images each representative of a coded target; (memory 17 of Fig. 1)

- code processing circuitry, communicatively coupled to the processing circuit, selectively directing the processing circuit to decode the plurality of undecoded images, each representative of the coded target. (decoder 18 of Fig. 1)

However, Tamura does not teach a host imaging processing unit as recited.

Postman teaches a decoding system comprising:

- a host image processing unit, operably coupled to the remote capture unit, (block 500 of Figs. 23-24) the host image processing unit comprising:

- a processing circuit operable to effect decoding of undecoded images; (column 51, line 39 to column 52, line 6; The part of circuit programmed by the barcode decode software.)

- code processing circuitry, communicatively coupled to the processing circuit, selectively directing the processing circuit to decode the plurality of undecoded images, each representative of the coded target. (column 51, line 39 to column 52, line 6; The part

Art Unit: 2624

of circuit loaded with the barcode client application 786 is the code processing circuit for directing and controlling the decoding process.)

As discussed in column 2, lines 3-24, Postman points out the advantage of their system: not being locked into a proprietary technology that can become obsolete in a matter of months in the fast moving world of high tech electronics and providing flexibility of upgrading a barcode decoding system.

It is desirable to facilitate upgrading a barcode decoding system. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to replace Tamura's dedicated second processing circuit with Postman's host image processing unit to perform the decoding process because the combination improves flexibility of the overall barcode decoding system.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 703 306-2796. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 703 308-7452. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9306 for After Final communications. TC 2600's customer service number is 703-306-0377.

Art Unit: 2624

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

Wenpeng Chen
Primary Examiner
Art Unit 2624

December 10, 2003

A handwritten signature in black ink, appearing to be 'Wenpeng Chen', written in a cursive style.